

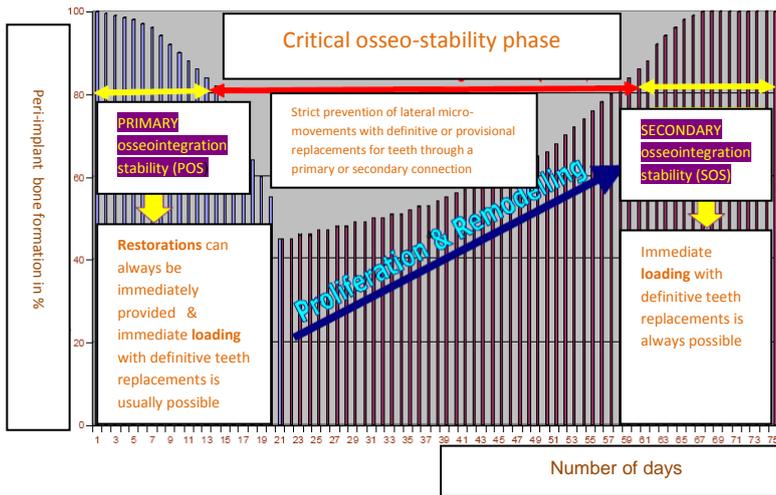
Why are MIMI & BCT the Techniques of the Future?

MIMI® stands for the Minimally Invasive Method of Implantation. The MIMI method is defined as a transgingival ('flapless') insertion of the one-piece implant (in particular), protecting the periost. According to the generally known, Classic Implantology Method (CIM), the bones cannot withstand any compression forces. That is why the one-piece implants have first been divided into two sections so that the bone 'heals' on the titanium surfaces. What is important: The diameter of the mostly cylindrical final drill almost corresponds to the diameter of the implant thread. That is why bone augmentations in the course of the implantation and the flapping open of the mucosa (with periost) have been and still are nearly always necessary. The pain the patient suffers from after surgery and the inflammation complication rates have been found to be much higher when the implants are inserted according to the CIM method than when they are implanted according to the MIMI method. It takes 3-6 months for the implants to "heal properly without being loaded" and to be osseointegrated so that the prosthetic phase with the abutments can begin. Only now, the complications with two-piece implants occur: loosening and even fractures of the internal screwing up to 45% (!!) within the first 10 years and a vertical bone fracture caused by teeth or implant overloadings and the bacterial migration into the micro-gap of two-piece implants when loaded. In the meanwhile, earlier dogmas such as the following have been refuted: "While drilling transgingivally, epithelium cells will lead to the ingrowth of the soft tissue in the bone cavity!", "The bone definitely needs to be left alone", "Connecting teeth and implants leads to complications and losses because of different resiliences!"



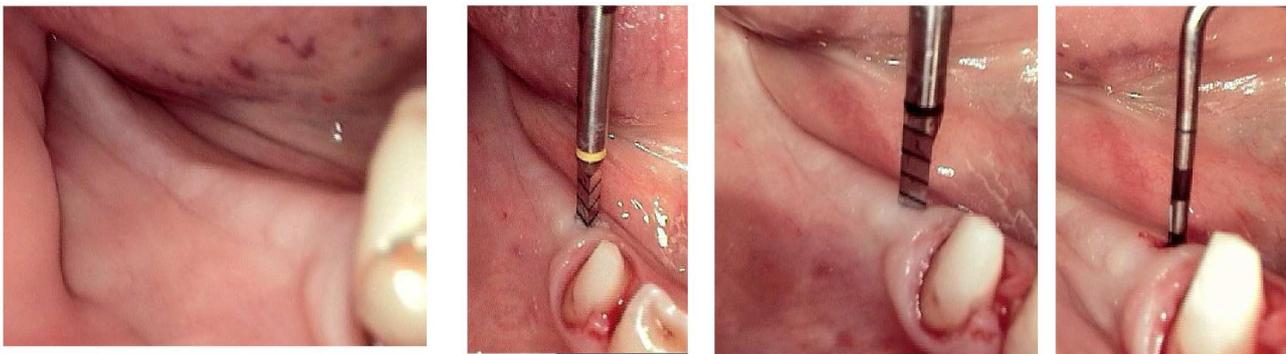
MIMI® and the BCT (Bone-Condensing Technique) are based on the latest findings about bone physiology, according to which bones do definitely tolerate compression and actually even need "progressive bone training": possibly without systematically flapping open the mucosa and without causing injury to the periost, a small-dimensioned, slightly conical-shaped bone cavity is drilled transgingivally. In this bone cavity a bigger diameter-dimensioned, preferably one-piece implant with controlled force is inserted, "condensing" the bone. In this way, the surrounding, peri-implant bone is "condensed laterally" and osseointegrated right from the beginning. Simply said: the Champion® implant is actually not an "implant" but rather a "bone-condensing osteotome"!

It is a great advantage to insert the implant at least 1-2 mm subcrestally in order to prevent bone recession! In my view, by the way, one of the major advantages of one-piece implants lies in the fact that there are no micro-gaps and "anaerobic breeding" in the subgingival and subcrestal areas. This subcrestal insertion of implants is not a MUST to achieve success on a long-term basis, though, but it would be the ideal way to implant. The primary stability from 40 Ncm to 80 Ncm is completely satisfactory to allow immediate loading or at least to provide an immediate restoration. We make sure to fit the superstructure either within the first 3 to 12 days or as from the 8th week after the implantation. If possible, we try to fit the superstructure at least partly connected because the 2-8 weeks after surgery are the most sensitive ones regarding the primary and secondary stability of the implants.

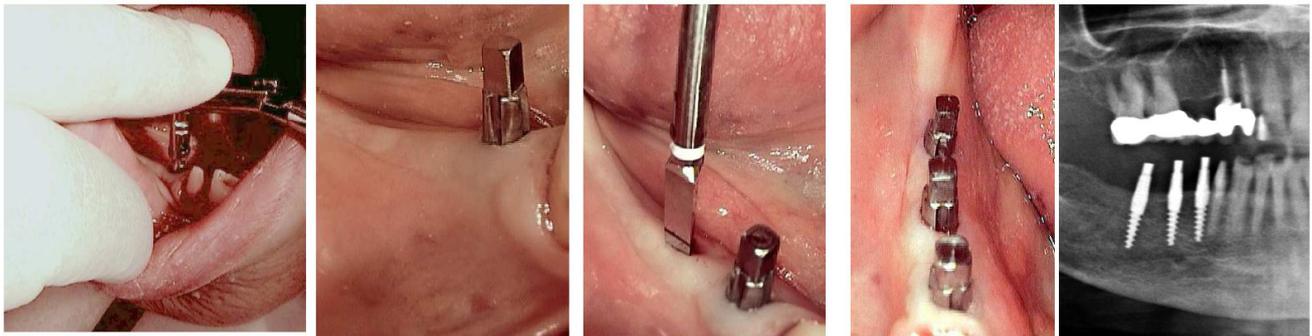


In the lower jaw, a maximum of only three drills (yellow and black – but in the D1 bone also the white drill) are needed, and in the upper jaw usually just one drill (yellow) is needed to prepare the bone cavity.

I always drill one to two mm palatally or lingually from the middle of the jaw ridge since the vestibular bone wall is crucial for a successful treatment.



Due to atrophy, the MIMI® drill is used (with a maximum of 250 rotations per minute, then the mouth must be gently rinsed to avoid osseous overheating) rather in the palatinal direction in the upper jaw and in the vestibular direction in the lower jaw. What is also important for a correct and safe procedure with MIMI is also the fact that the bone cavity drill has to have the right length (plus 1-2 mm subcrestal drilling) so that the implant can be inserted properly, condensing the bone. Always check the bone cavity with a sterile bone or periodontal explorer: the bone must be well palpable and feel hard and rigid in all five dimensions.



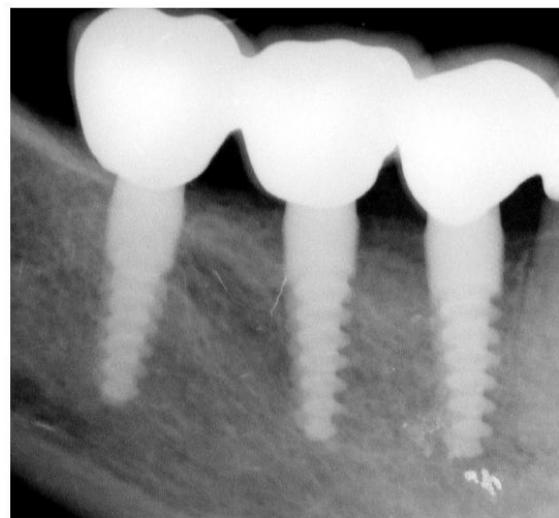
Now, the complete implant is slowly and laterally inserted in the sub-dimensioned bone cavity, condensing the bone. First, the implant is inserted manually, and then the torque is checked. The implant should be inserted with a torque of 40-80 Ncm, which is achieved as soon as the ratchet arm bends. In this way, after just a few minutes, the whole implantation is finished, and the patients feel very little pressure in their bones.



In the same session as the gentle implantation, the zirconium 'Prep-Caps' (PCs) (Champions®- Implants), available in various types, allow to compensate different implant divergences after the cementation and the preparation by the dentist. Thanks to this suitable procedure, the only disadvantage that one-piece implants have in comparison to two-piece ones is well-compensated.

As for this patient's mouth seen on the picture, only four days after the implantation, the framework was tried in. The superstructure was definitely fitted only another four days after a second bite registration with the framework, passively fitted on the Champions® implants or on the Prep Caps.

The clinical and corresponding X-ray photograph below shows the view of the teeth two years after surgery and immediate loading.



In current Medicine there are many possibilities, but not everything is necessary and reasonable! I have almost exclusively implanted according to the MIMI® method for 15 years now, and I have observed and documented over 20.000 immediately loaded one-piece implants (also from other dental offices). The success prognoses of MIMI® are at least consistent with the CIM but according to my experience even much higher. MIMI® as a method and immediate loading can no longer be excluded in our daily work with our patients. Since the fact is also: thanks to the MIMI® method, which often costs 50% less than the CIM method, patients suffer very little from pain and complications; much more patients therefore opt *for* implant-supported replacements for teeth. And the money that is earned is not just spent for material and the laboratory but instead, it mainly remains in your dental office.

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(Translator: Celina Jelonek)